# Joint Commission Certified Comprehensive Stroke Center

Over 20 years of championing and driving the highest standards of care for stroke care in Nebraska.



SERIOUS MEDICINE. EXTRAORDINARY CARE.

Innovation and progress in the care and treatment of stroke have accelerated tremendously over the past 30 years, making it complex, demanding, resource-intensive, and time, quality and skill-dependent. To meet these challenges, Nebraska Medicine established the first stroke center in Nebraska in 2003 to set high standards of care and deliver advanced, structured and qualitydriven care to patients locally.

### Key milestones:

- 2003: Establishment of the first stroke center in Nebraska.
- First nationally certified Primary Stroke Center by The Joint Commission/American Heart Association (TJC/AHA) in Nebraska.
- First locally based telestroke network in Nebraska, serving Nebraska and western Iowa.
- First nationally certified Comprehensive Stroke Center by the TJC/AHA in Nebraska.
- First National Institutes of Health STROKE-NET site in Nebraska.

Our commitment to research has allowed our patients to participate in major national and international studies, contributing to changes in stroke care. We have been successful in driving the highest standards of stroke care for 20 years, validated and recognized nationally.

As we celebrate 20 years of progress, our focus remains on supporting you – the frontline healthcare providers – in delivering optimal outcomes for stroke patients. Together, we continue to push the boundaries of stroke care, from the simplest cases to the most complex.

## Pierre Fayad, MD

Department of Neurological Sciences Division Chief, Vascular Neurology and Stroke Medical Director, Nebraska Stroke Center

## Why choose us?

Nebraska Medical Center is Nebraska's only Joint Commission Certified Comprehensive Stroke Center. We're also the region's only hospital offering 24/7 stroke services, including a neuro ICU with neurointensivist support.

For over 20 years, we've been setting the gold standard in stroke care. Our expertise saves lives and improves outcomes. When minutes matter, choose the best.

## **Comprehensive Stroke Center designation**

Nebraska Medical Center is certified by the Joint Commission as a Comprehensive Stroke Center – the highest level of stroke certification. This recognition means we can manage the most complex stroke cases.

We fulfilled these criteria to earn this designation:

- Annual volume requirements for care and treatment of complex therapies, including mechanical thrombectomy, aneurysm clipping and coiling.
- Having dedicated neuroscience intensive care unit beds for complex stroke patients with neuro-critical care coverage 24 hours a day, seven days a week. demonstrating organized and efficient care endovascular therapy.
- Use of advanced imaging capabilities to ensure appropriate diagnosis and treatment.
- Use of a peer-review process to evaluate and monitor the care provided to patients with ischemic and hemorrhagic stroke.
- A commitment to quality improvement, benchmarking and public reporting.
- Continuous efforts to advance stroke science and participation in stroke research.
- A focus on interdisciplinary expertise and care within the health system and sharing of expertise across the region.

## **Advanced treatment**

Each year, we treat more than 800 stroke patients, using advanced treatments such as:

- Pharmacologic thrombolysis for treatment of acute ischemic stroke.
- Mechanical thrombectomy for occlusions of large vessels assisted with AI technology.
- Evacuation of lobar hemorrhages and stabilization of chronic subdural hematomas using the latest advances in procedural approaches for hemorrhage.
- Care and treatment for aneurysms and subarachnoid hemorrhage using flow occlusion devices tailored to the patient's unique anatomy.

## <sup>5.</sup> Unparalleled performance

Timely reperfusion of an occluded intracerebral artery is a strong predictor of improved functional outcome and reduced mortality in patients with an acute ischemic stroke. At Nebraska Medical Center, we strive to exceed national industry benchmarks by demonstrating organized and efficient care and treatment for ischemic stroke thrombolysis and

| MEASURE   | NEBRASKA<br>MEDICAL<br>CENTER | AHA INDUSTRY<br>BENCHMARK |
|---|-------------------------------|---------------------------|
| Percentage of patients treated with IV thrombolysis within 60 minutes or less of arrival  | 93%                           | 85%                       |
| Percentage of patients treated with IV thrombolysis within 30 minutes or less of arrival  | 50%                           | 50%                       |
| Percentage of patients treated with IV thrombolysis within 45 minutes or less of arrival  | 82%                           | 75%                       |
| Percentage of EVT patients with door to device (arrival to first pass of thrombectomy device) within 60 minutes of arrival for patients transferred from outside hospitals or within 90 minutes of arrival for patients arriving directly to the emergency department | 85%                           | 50%                       |
| Percentage of patients with door to reperfusion of vessel once clot is removed  | 89%                           | Not established           |
| Average minutes from arrival to reperfusion of vessel once clot is removed  | 78 min                        | 120 min                   |
| Patients with arrive by EMS with stroke signs and symptoms are seen by the stroke team within minutes of arrival  | Less than<br>1 minute         | Less than<br>10 minutes   |

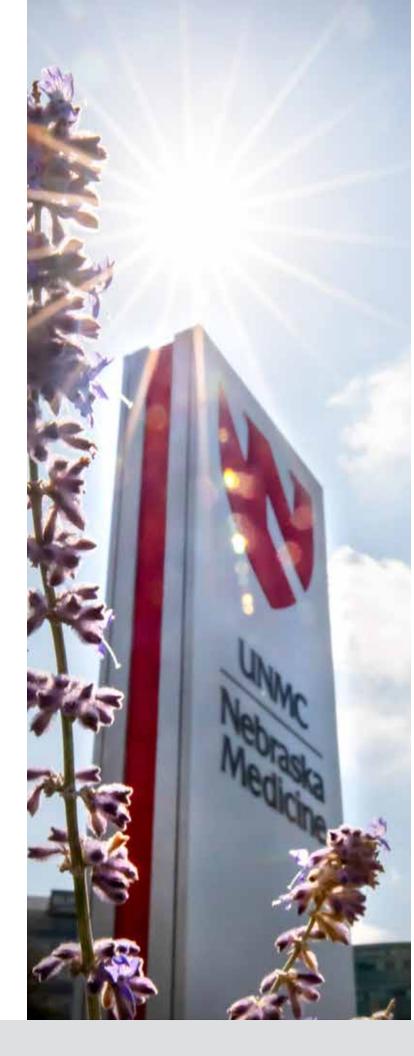
## Leaders in academic research

Nebraska Medicine is committed to:

- 1. Providing the most advanced evidence-based care for stroke treatment and prevention.
- 2. Advancing cutting-edge research and knowledge to further expand treatment options.

As the largest destination hospital and multispecialty outpatient neuroscience center in the region, we involve patients from Nebraska and nearby states in research to ensure the results are relevant to them. We participate in highly selective, promising research trials, such as those funded by the National Institutes of Health (NIH) through the U.S. National Stroke Network, NIH-StrokeNET, of which Nebraska Medicine is a highly active site. Additionally, we participate in highly promising and relevant trials that are industry-funded. We have participated in numerous clinical trials that have addressed critical questions in stroke treatment and are published in top medical journals.

Our commitment to research and advancing knowledge allow us to rapidly incorporate the latest advances into our daily care and ensure that we remain at the vanguard of neurological science.



## Accreditations and accomplishments

## Get With the Guidelines® Gold Plus Achievement Award

The American Heart Association (AHA) and American Stroke Association (ASA) recognized Nebraska Medical Center and Bellevue Medical Center with the Get With the Guidelines® Gold Plus Achievement Award. To qualify, hospitals must reach an aggressive goal of treating patients with 85% or higher compliance to core standard levels of care as outlined for two consecutive calendar years. These hospitals must also demonstrate 75% compliance with seven out of 10 stroke quality measures during the past 12-month period.

## **Target: Stroke Honor Roll Elite Plus**

The AHA and ASA awarded Nebraska Medical Center with Target: Stroke Honor Roll Elite Plus recognition. To qualify, hospitals must achieve door-to-needle administration of IV tPA within 60 minutes in 75% or more of eligible patients and within 45 minutes in 50% of eligible patients.

## **Target: Stroke Honor Roll**

The AHA and ASA awarded Bellevue Medical Center with Target: Stroke Honor Roll recognition. To qualify, hospitals must achieve door-to-needle administration of IV tPA within 60 minutes in 50% or more of eligible patients.

## **Our team**

For optimal care and improved outcomes, it is imperative to have a fellowship-trained team following an ischemic or hemorrhagic stroke. The breadth and depth of our expertise across specialties ensures we are delivering the best possible care before, during and after stroke intervention.

## Neurohospitalists



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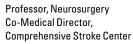
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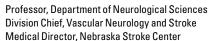


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## **Highlight: Innovation**

Innovation is at the heart of our center's mission to provide exceptional patient care.

## **Neurocritical care program**

The state-of-the-art Neurocritical Care Program handles the most complex neurological cases. The 20-bed Neuroscience ICU is the first and only of its kind in Nebraska. It is staffed by boardcertified neurointensivists and specialized health care professionals who provide 24/7 care.

The Neuroscience ICU is specially designed for patients facing neurocritical care crises, such as:

- Major strokes
- Aneurysm ruptures
- Seizures and status epilepticus
- Meningitis/encephalitis
- Autoimmune encephalitis
- Guillain-Barre syndrome
- Myasthenic crisis
- Traumatic brain injury
- Cerebral edema
- Dural venous sinus thrombosis
- Vasculitis/vasculopathy/reversible cerebral vasoconstriction syndrome
- Brain tumors
- Subarachnoid hemorrhage

The Neurocritical Care Program uses cuttingedge technologies, including continuous electroencephalography, depth EEG, evoked potentials, transcranial dopplers, intracranial pressure monitoring and positron emission tomography.

## **Incidental unruptured** intracranial aneurysms (UIA)

The widespread use of high-resolution brain imaging has enhanced diagnostic accuracy and reduced diagnostic and therapeutic delays. A significant outcome of these advancements is the increased detection of unruptured intracranial brain aneurysms (UIA) over the past decades.

When a primary care provider identifies a UIA on a brain scan performed for various noncerebrovascular reasons, it can present considerable challenges. In these situations, having immediate access to experienced neurovascular subspecialists is immensely reassuring.

Our group of four fellowship-trained vascular neurosurgeons is the most experienced in the region, offering:

- All forms of endovascular and microsurgical options for patients with unruptured brain aneurysms.
- Specialized neurointerventional surgery/endovascular neurosurgery clinics.

Fortunately, most UIAs do not require emergency therapy. To achieve the best patient outcomes, however, it is essential to rely on skilled, high-volume surgeons and dedicated institutions. Our specialized neurointerventional and endovascular neurosurgery clinics are designed specifically to assess and address the complex issues faced by patients with unruptured aneurysms.

## **Telestroke network**

## We provide:

- Stroke coverage 24/7 with an average response time of less than five minutes.
- Inpatient teleneurology coverage
- Telestroke physicians that include neurohospitalists, neurointensivists and neuro-vascular specialists
- Guidance on clinical workflows and ongoing education opportunities for local providers and clinical teams.
- Program feedback with outcomes measured and reported.
- Medical director support for certified stroke centers.

If transfer is needed, we are ready with the largest group of specialty and fellowship-trained providers in the region and will be with you from initial call to transfer.

### Other benefits:

- We know you, your patients and our region. We become an extension of your care team.
- As an academic medical center, we ensure care delivered is based on the latest science and treatments.
- Our stroke network, combined with inpatient neurology evaluations, will assist in guickly identifying and offering treatment recommendations for all neurology conditions.

### **Our impact:**

- 18% intervention rate for acute ischemic stroke.
- 50% of transferred patients discharged to home with no to slight disability.
- Nearly 30% of patients treated with thrombolytic therapy are able to stay in their community.

For more information about our telestroke services, please email Denise Gorski, MHA, BSN, RN, neuroscience clinical programs, guality and accreditation manager, at dgorski@nebraskamed.com.



## **Partner highlight: Montgomery County Memorial Hospital**

Nebraska Medicine proudly partners with Montgomery County Memorial Hospital in Red Oak, Iowa, for exceptional telestroke services. Our partners benefit from:

- Regular stroke training sessions.
- Enhanced team skills and effectiveness.
- Improved community access to specialized stroke care.

"The support from Nebraska Medicine has enhanced our ability to manage stroke cases effectively, ultimately improving outcomes and safety for those we serve."

- Hailey Runyon, RN, BSN, Acute Stroke Program Coordinator, Montgomery County Memorial Hospital

## **Clinical trials**

Advancing acute ischemic stroke care:

- **THUNDER:** Acute ischemic stroke study with the Penumbra System<sup>®</sup> including Thunderbolt Aspiration Tubing.
- **RESTORE:** REal-World analyses of stroke-thrombus occlusion retrieval.

Advancing ischemic stroke prevention:

- **LIBREXIA-SSP Stroke:** International trial evaluating the efficacy and safety of Milvexian, an oral novel factor XIa inhibitor (potentially the next generation of oral anticoagulants) in preventing recurrent ischemic stroke.
- **CAPTIVA:** A comparison of anticoagulation and anti-platelet therapies for intracranial vascular atherostenosis (narrowing of brain arteries). *(NIH StrokeNet trial)*

Advancing hemorrhagic stroke prevention:

- **ASPIRE:** Evaluating efficacy and safety of anticoagulation, in preventing ischemic stroke in patients with cerebral hemorrhage and atrial fibrillation. (*NIH StrokeNet trial*)
- **SATURN:** Evaluating the role of statins in spontaneous lobar intracerebral hemorrhage (ICH) patients. (*NIH StrokeNet trial*)

Evaluating the relation of sleep apnea to stroke:

• **Sleep SMART:** Investigating the value of CPAP treatment of obstructive sleep apnea in those with stroke and sleep apnea. (*NIH StrokeNet trial*)

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## **Choose the best for your patients**

When it comes to stroke care, every second counts. Choose Nebraska Medicine – the region's only Joint Commission Certified Comprehensive Stroke Center.

Refer your patients to us and become part of a network that's redefining stroke care. Together, we can save lives and improve outcomes.

Call **800.922.0000** to refer a patient to our vascular neurology or neurosurgery clinics.



Physician Outreach 988132 Nebraska Medical Center Omaha, NE 68198-8132



## ABSTRACT BACKGROUND

